

**Contraceptive Method and Condom Use Among Women
at Risk for HIV Infection and Other Sexually Transmitted Diseases —
Selected U.S. Sites, 1993–1994**

A primary strategy for decreasing the spread of human immunodeficiency virus (HIV) and other sexually transmitted diseases (STDs) is to increase the rate of condom use among at-risk persons, and an important approach for reducing unintended pregnancies is to increase the use of effective contraception. Some women are at risk for both STDs and unintended pregnancy and require a highly effective strategy for protection against both risks. To assess the association between condom use at last intercourse and use of specific methods to prevent pregnancy among women at risk for HIV infection and other STDs, project investigators analyzed data from the Prevention of HIV in Women and Infants Demonstration Project. This report presents the findings of the analysis, which indicate that many women who were potentially well protected against pregnancy were underprotected against STDs.*

The demonstration project is an intervention research study begun in 1993. For the baseline assessment, women were interviewed about reproductive health and STDs in eight sites (Oakland [one site] and San Francisco [two sites], California; Portland, Oregon [one site]; and Philadelphia [two sites] and Pittsburgh [two sites], Pennsylv-

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nia). Women were recruited during 1993 and 1994 from settings frequented by women at risk for HIV infection and other STDs (e.g., residential, business, and outdoor settings and social- and health-service organizations). Women aged 15–34 years who reported having vaginal intercourse during the previous 30 days with either a main partner and/or casual partner(s) (n=3326) were asked about the method they used to prevent pregnancy, type of partner, HIV-related risk behaviors, and condom use at last vaginal intercourse with a main and/or casual partner(s). Interviewers asked women which of three commonly recommended methods of contraception they used to prevent pregnancy: 1) condoms only (including condoms plus spermicides); 2) hormonal contraception, specifically oral contraceptives, levonorgestrel implants (Norplant^{®†}), or injectable medroxyprogesterone acetate (Depo-Provera[®]); and 3) surgical sterilization. Women included in this analysis reported 1) using only one of these methods for birth control, 2) not being HIV positive, 3) having ever (lifetime) had her partner use a condom for pregnancy prevention, and 4) having one or more risk factors for HIV infection. For women who had sex with a main partner during the previous 30 days, risk factors for HIV infection included having more than one sex partner during the previous 6 months; injecting drugs during the previous year; or having a main sex partner who injects drugs, has sex with others, or is HIV positive. For women with casual partners, the risk factors for HIV infection consisted of having vaginal sex with a casual partner during the previous 30 days.

Of the 3326 women interviewed, 1676 met the risk factor criteria; 1083 of those used one of the specified methods to prevent pregnancy. Twelve women who were HIV positive and 119 women who had never had a partner use condoms for birth control were excluded, yielding a sample of 952 women.

Among the 952 women, the median age was 26 years; 740 (78%) were black; 391 (41%) had less than a high school education; 684 (72%) received at least some of their income from welfare; and 627 (66%) lived in a household with children. In addition, 564 (59%) of the women reported having had sex with a main partner, and 580 (61%) reported having had sex with a casual partner during the previous 30 days.

Logistic regression analyses were conducted to test the strength of association between method used to prevent pregnancy and condom use at last intercourse with either a main or casual partner. Women who had vaginal intercourse with both a main partner and a casual partner were included in both analyses. Contraceptive method was the primary independent variable; age, education level, race, ethnicity, and site were controlled for in each analysis.

Of the 555 women with main partners for whom complete data were available, 309 (56%) reported not using condoms at last intercourse with their main partner; of 569 women with a casual partner for whom complete data were available, 163 (29%) reported not using condoms at last intercourse with their casual partner. Among women whose contraceptive method was condoms, 108 (39%) of 277 had not used a condom at last intercourse with their main partner, and 73 (22%) of 336 had not used a condom at last intercourse with their casual partner. Among women who used hormonal contraception, 74 (70%) of 105 had not used a condom at last intercourse with their main partner, and 32 (42%) of 76 had not used a condom at last intercourse with their casual partner. Among women who were surgically sterilized, 127 (73%) of 173

[†]Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

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had not used a condom at last intercourse with their main partner and 58 (37%) of 157 had not used a condom at last intercourse with their casual partner. Compared with women reporting condoms as their method of pregnancy prevention, women using hormonal contraception were 4.2 (95% confidence interval [CI]=2.5–7.0) times more likely to report not using condoms at last intercourse with their main partner, and surgically sterile women were 4.1 (95% CI=2.5–6.6) times more likely to report not using condoms with their main partner. Compared with women reporting condoms as their method of pregnancy prevention, women using hormonal contraception were 2.2 (95% CI=1.3–3.9) times more likely to report not using condoms at last intercourse with their casual partner, and surgically sterile women were 1.8 (95% CI=1.1–3.0) times more likely to report not using condoms with their casual partner.

At two sites, women were asked additional questions about their understanding of the effectiveness of various contraceptive methods in preventing STDs. Of the 174 women who responded to these questions, 27 (16%) said birth control pills were somewhat or very effective, 13 (8%) said Norplant[®] was somewhat or very effective, and 17 (10%) said surgical sterilization was somewhat or very effective in preventing STDs.

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Editorial Note: The findings in this report are consistent with previous findings from studies of condom use among sterilized women (1,2) that suggest condom use is lower among women who believe they are effectively preventing pregnancy without condoms. Differences in reported condom use in the categories compared in this sample may be related to women's perceptions of the relative importance of preventing pregnancy compared with preventing disease. Women who use contraceptive methods other than latex condoms may be less motivated to use an additional contraceptive method to protect themselves from disease, may have more difficulty persuading a partner that a condom is needed, or may incorrectly believe that those contraceptive methods provide protection from disease (3). To develop effective disease-prevention messages, better understanding is needed of why women at risk for HIV infection who are using contraceptive methods other than condoms do not use condoms for disease prevention.

Of the women interviewed in this study, more than half reported not using a condom at last intercourse with a main partner, and one third reported not using a condom at last intercourse with a casual partner. The failure to use condoms, particularly with main partners, leaves these women vulnerable to STDs, including HIV infection. Health-care practitioners should emphasize that latex condoms are the only contraceptive proven effective against HIV infection and that, when used consistently and correctly, they are highly effective for both disease and pregnancy prevention (4,5).

Findings from this study also indicate that condoms are being used in conjunction with other contraceptive methods by substantial numbers of women, especially with casual partners. A dual-method approach (e.g., hormonal contraception plus condoms) for pregnancy and disease prevention may be feasible for some women at risk for both unintended pregnancy and STDs. Some women at risk, however, may find

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that using the single method of latex condoms consistently and correctly for the dual purpose of pregnancy and disease prevention is more acceptable. Additional strategies are needed to protect more women at risk for both unintended pregnancy and disease.

The findings of this report are subject to at least two limitations. First, because the study sample was not representative of all women in the United States or all women at risk for HIV infection and other STDs, findings cannot be generalized for all women. Second, it cannot be determined whether failure to use condoms resulted from use of other contraceptive methods or other contraceptive methods were used because of the women's reluctance to have their partners use condoms.

Practitioners should recognize that women at risk for STDs who are not using condoms for pregnancy prevention may not use condoms for prevention of HIV infection and other STDs. Special efforts are needed to counsel these women about the necessity of condom use to prevent HIV infection and other STDs.

References

1. CDC. Surgical sterilization among women and use of condoms—Baltimore, 1989–1990. *MMWR* 1992;41:568–9,575.
2. CDC. HIV-risk behaviors of sterilized and nonsterilized women in drug-treatment programs—Philadelphia, 1989–1991. *MMWR* 1992;41:149–52.
3. Galavotti C, Schnell DJ. Relationship between contraceptive method choice and beliefs about HIV and pregnancy prevention. *Sex Transm Dis* 1994;21:5–7.
4. CDC. Condoms for prevention of sexually transmitted diseases. *MMWR* 1988;37:133–7.
5. CDC. Update: barrier protection against HIV infection and other sexually transmitted diseases. *MMWR* 1993;42:589–91,597.